

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Economic Guidance Memorandum 00-06 (Addendum), Release of Deep Draft Vessel Cost Model.

1. After an extensive review and testing period, the Deep Draft Vessel Cost Model is now available for use. The model software allows the analyst to deviate from published operating costs (currently Economic Guidance Memorandum 00-06) to better reflect the specific conditions in their study. The model and reference manual can be obtained from Pat Mutschler, (703) 428-6368, of the Institute of Water Resources (IWR). The software has unlimited distribution internal to the Corps but cannot be distributed outside the Corps.
2. With this software, the analyst has the capability to change vessel flag, vessel age, vessel speed and fuel costs as appropriate. Deviations to the published operating costs for vessel age, vessel speed and vessel flag characteristics do not require pre-approval from HQUSACE, CECW-P, if they are accomplished using this software. Deviations to fuel costs will still require pre-approval from HQUSACE, CECW-P. Documentation of all deviations must be provided in the text of any decision document. The decision document should also contain the Vessel Cost Reports from Menu 3.0 for all vessels affected for comparison purposes and the independent technical review should verify both the assumptions and computations used in the analysis. We encourage the use of IWR staff in technical reviews of analysis containing deviations from published operating costs.
3. The category of vessel flag may be changed from the default ITF (International Transport Workers' Federation) Union Approved, Flag of Convenience vessel to another flag category. Country of flag registry (and source of this information) must be documented. Flags of Registry for specific vessels are easily found in any Ship register (i.e., Fairplay, Lloyds, Clarkson). An example of changing flag categories would be to change the category to "National Flags of OECD" if you had a significant number of European flagged ships to warrant calculating their operating costs separately. Note that some European countries (Denmark, Germany, Norway, etc.) have second Registers that are still Flags of Convenience, the default for the software, and would *not* be appropriately moved to the OECD category. Lists of Flags of Countries for the various categories are found in the reference manual.
4. Vessel age can be changed to any age between 0 and 35 years. Age can be determined for a specific vessel given the year of build found in Ship Registers. While vessel age significantly impacts maintenance costs (increasing with age) and insurance costs (decreasing with age), the combined effect virtually cancels each other out.

5. Vessel Operating Speed may be changed, but must be done with great caution. The fuel consumption rates in the Economic Guidance Memorandum are based on service speed. Vessels will try to operate at “economic” speed, the speed which produces the best possible financial result for the owner. This may or may not be the service speed. There are conflicting considerations when determining economic speed. Lower speeds reduce fuel costs but may increase crew costs if significantly lengthening the voyage. The value and perishability of the goods and timeliness needed are further considerations. Occasionally, vessels deliberately slow their speed below economic speed. This is known as “slow steaming”. Bulkers and tankers engaged in slow steaming in the 1970s and 1980s when fuel prices were very high and therefore a large proportion of the total operating costs. Presently, this practice has all but ceased, but could reoccur if fuel prices remain at their present high levels. To deviate from the default operating speeds, one must fully document the rationale behind doing so.

6. The software allows for the change in fuel costs. The costs included in the software reflect those current in the Appendix of the Economic Guidance Memorandum on deep draft vessel operating costs at the time of distribution. The fuel costs are based on an average of nine ports around the world. It would be permissible to change these fuel prices if the vessels benefiting from the harbor development project being studied are on a specific trade route like Asia to the U.S. West Coast only. For example, it would then be appropriate to use the average of the ports of Tokyo, Singapore and Los Angeles, rather than the full set of nine ports. Deviations to fuel costs must use IWR collected data only and no escalation in future fuel costs will be allowed. Trade routes for specific vessels must be documented as to their source and may be obtained from a variety of sources like the carriers themselves, Lloyds Movements Database (available for unitized movements to all USACE offices) and web sites.

7. The Deep Draft Vessel Cost Model was developed using funding from the Transportation Systems Program. The Transportation Systems Program is under the overall direction of Robert Pietrowsky, Chief of the Navigation Branch, IWR. Ron Conner is the HQUSACE Transportation Systems program monitor. Principal investigator for the Deep Draft Vessel Cost Model effort is Christine Brayman, (703) 428-9085. Questions concerning this memorandum can be addressed to Mr. Conner, (202) 761-0132.

FOR THE COMMANDER:

/s/

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